

## **Module 9: Natural Resource Assessment and Damages (NRD)**

- This section discusses DOE's role with regard to natural resources, the process for assessing damages as compensation for natural resource injury, and how NRDA relates to the CERCLA process.
- Key references are:
  - *Natural Resource Trusteeship and Ecological Evaluation for Environmental Restoration at Department of Energy Facilities*, DOE, Office of Environmental Guidance, RCRA/CERCLA Division (EH-231), June 1991, DOE/EH-0192.
  - 43 CFR Part 11 -- Regulations on the NRDA process.

## Module Objectives

- ❑ Identify what resources are included in NRD
- ❑ Identify what damages are excluded from NRD
- ❑ Identify the federal agency responsible for issuing resource damage assessments
- ❑ Identify federal trustees
- ❑ Identify how natural resources damages are calculated
- ❑ State DOE policy concerning natural resource damage assessment and the RI/FS.

## CERCLA Establishes NRD

- ❑ CERCLA establishes liability for releases of hazardous substances causing injury to, destruction, or loss of natural resources
- ❑ Resources must be public property (or held in trust by any State, local government, foreign government, or Indian Tribe)
- ❑ Resources include land, fish, wildlife, biota, air, water, groundwater, or drinking water

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- CERCLA 107 (f) states that, "The President..shall act on behalf of the public as trustee of ...natural resources."
  - Then, CERCLA 107(f)(2) and Executive Order 12580 delegate this responsibility to...the Secretaries of Defense, Interior, Agriculture, Commerce, and Energy.
- CERCLA and the National Oil and Pollution Contingency Plan (NCP, Subpart G) authorize the designated trustees to assess damages for injury to, destruction of, or loss of natural resources on lands under the trustees' management or protection.
- The Department of Energy has a dual role with regard to natural resources
  - DOE is the Designated Natural Resource Trustee for resources on, over, or under land within its jurisdiction.
    - But, DOE may share co-trusteeship with other agencies for some resources.
  - As CERCLA Lead Response Agency, DOE may also be subject to CERCLA 107(a)(4)(C), liability for "Damages for injury to, destruction of, or loss of natural resources."
    - Damages assessed by co-trustees may therefore be enforceable against DOE.

## **Certain Damages are Excluded**

- ❑ Those specifically identified as an irreversible and irretrievable commitment in an EIS or comparable environmental analysis
- ❑ Those wholly occurring before enactment of CERCLA
- ❑ Injury that resulted from any federally permitted release

## Key Elements

- ❑ CERCLA and NCP give trustees a non-discretionary responsibility to assess damages for injuries
- ❑ Regulations are set forth by Department of Interior (many challenges to their economic valuation methods have occurred)
- ❑ Damages = restoration costs + assessment costs + compensable value

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- CERCLA 301(c) and the NCP delegate authority for natural resource damage regulations to the Department of the Interior (DOI) to promulgate the process for assessing money damages as compensation for natural resource injury.
- The DOI process for Natural Resource Damage Assessment (NRDA) is laid out in 43 CFR 11.
- There are two types of Damage Assessments
  - Type A is a simple model that is used only for coastal and marine environments.
  - Type B allows for individual site-specific assessments.
    - We will discuss type B assessments later.
- The use of DOI procedures is not mandatory, but...
  - They must be used in order to obtain the "rebuttable presumption" contained in CERCLA 107(f)(2)(c).
  - If the trustee has obtained the rebuttable presumption, the burden of proving the accuracy or inaccuracy of the assessment falls on the responsible party in any administrative or judicial proceeding.

## Who Are Trustees?

- ❑ Secretaries of Defense, Interior, Agriculture, Commerce, and Energy
- ❑ States
- ❑ Tribes
- ❑ DOE is both a trustee but is also liable for natural resource damages as a responsible party under CERCLA

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- Many natural resources occurring on or adjacent to DOE property are under the jurisdiction of other trustees.
  - U.S. Department of the Interior
    - Fish and Wildlife Service: Migratory birds, threatened and endangered species, national wildlife refuges, etc.
    - National Park Service: National parks, national seashores, national recreation areas, scenic rivers, etc.
  - U.S. Department of Commerce
    - National Oceanic and Atmospheric Administration (NOAA): Coastal environments, anadromous/catadromous fish, marine mammals and sanctuaries, marine fisheries, etc.
  - U.S. Department of Agriculture
    - Forest Service: National Forests.
  - U.S. Department of Defense
    - Army Corps of Engineers: Waterways and dams.
    - DOD installations
  - States
    - Wildlife, surface and groundwater, etc.
  - Indian Tribes
    - Natural resources on or affecting tribal lands.

## Timeframes for NRD

- ❑ CERCLA 113(g) establishes statute of limitations for damage claims at NPL sites and Federal facilities
  - An action for damages must be commenced within 3 years after the completion of the remedial action (excluding operation and maintenance)
  - Ongoing legal and Congressional attention exists on implementing and interpreting this provision

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- The four phases of the **NRDA type B process** are listed below.
- The **pre-assessment screen** is used to determine whether a hazardous substance release and its subsequent effect justifies a full NRDA.
  - 43 CFR 11.23(e) provides the following criteria to determine if a full NRDA is needed:
    - A discharge or release has occurred
    - There are likely adverse effects on natural resources
    - The quantity and concentration are sufficient to cause injury
    - Assessment data are readily available or obtainable at a reasonable cost
    - The response action will not remedy NR injury without further action
- The **assessment plan** is designed to ensure that the NRDA is performed in a planned and systematic matter.
  - It documents the scientific and economic methods to be used and the data to be collected.
  - The Plan also serves as a means of evaluating whether assessment can be conducted at a reasonable cost.
  - It also demonstrates coordination with the RI/FS.
- The **assessment phase** involves determination of injury, quantification of service effects, and determination of damages. We will discuss these on the next slide.
- The **post-assessment phase** involves:
  - Documenting the results of the assessment in a Report of Assessment
  - Establishing an account for all money awarded as compensation.
  - Funds, which must be used only for restoration, rehabilitation, replacement, or acquisition of equivalent of the injured resources.
  - A Restoration Plan.

## DOE Actions on NRD

- ❑ DOE policy is to integrate natural resource concerns early into the investigation and remedy selection process to minimize unnecessary resource injury
- ❑ Formal and informal mechanisms are in place to work with natural resource trustees at many DOE sites, including those with highest estimated restoration costs

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- The purpose of the injury determination step is to establish that resource injury has occurred as the result of a hazardous substance release.
  - Determine injury by defining injuries, determining pathways, and using testing and sampling methods. There are specific injury types defined for each of five resource categories.
- Effects on services are quantified in the assessment. Services are functions performed by one resource for another or for people.
- Natural resource damages = restoration costs + damage assessment costs + "Compensable value" or diminution in value.
  - Consumer surplus is the basis for calculating compensable value.
    - Consumer surplus = maximum willingness to pay - total expenditure.
    - Use values are the consumer surplus associated with recreational and other uses of natural resources by people.
    - Nonuse values are the consumer surplus associated with values people may place on natural resources services, even if they don't use those services.
      - For instance, people may be willing to pay to reserve the right to use resources in the future, or because they are unique, or to preserve them for the benefit of future generations.



## **Estimates of DOE Liability**

- ❑ **FY97 Defense Authorization Act required DOE to study its NRD liabilities**
  - **Department estimated liabilities between \$1.4 billion and \$2.5 billion**
  - **1996 GAO report estimated liabilities for DOE of between \$1.7 billion to \$24.9 billion**
  
- ❑ **Both applied ratios of past damage awards to response costs at private sector sites**

## **Estimates of DOE Liability (Con't)**

- Each study was based on limited data and faced significant uncertainties
  - No history of NRD claims at DOE sites
  - No evaluation of data on potential injuries to natural resources at DOE sites after response actions are complete
  - In fact, few DOE response actions have been selected, implemented, and completed at DOE sites at this time

## Other Unresolved Issues

- ❑ Legal Uncertainties
  - How federal ownership affects State trustees
  - How Indian treaty rights affect Tribal trustee rights
- ❑ Precedent (if any) set by recent large private sector claims
- ❑ Uncertainty in estimates of DOE's restoration program scope and costs

## Module Summary

- ❑ CERCLA establishes liability for releases of hazardous substances causing injury to, destruction, or loss of natural resources
- ❑ Natural Resource Damages= restoration costs+ assessment costs+ compensable value
- ❑ CERCLA and the NCP authorize the designated trustees to assess damages for injury to, destruction of or loss of natural resources on lands under trustees' management or protection
- ❑ Regulations are set forth by the Department of the Interior